



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,482	07/27/2006	Marcos C. Tzannes	5550-52-PUS	1762
62574	7590	12/02/2009	EXAMINER	
Jason H. Vick Sheridan Ross, PC Suite # 1200 1560 Broadway Denver, CO 80202			CORRIELUS, JEAN B	
			ART UNIT	PAPER NUMBER
			2611	
			NOTIFICATION DATE	DELIVERY MODE
			12/02/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jvick@sheridanross.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,482	<b>Applicant(s)</b> TZANNES, MARCOS C.	
	<b>Examiner</b> Jean B. Corrielus	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 103009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 88-121 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 88-121 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Examiner's Comment:Re Specification and data sheet***

1. The information provided in the data sheet with respect to the “domestic priority information” is not consistent with the information provided in the first sentence of the specification. Please correct for consistency.

### ***Claim Objections***

2. Claims 90, 98, 107, 115 are objected to because of the following informalities: Please insert “the” before “impulse” in each of claims 90, 98, 107 and 115. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 88-121 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 88 recites a method to configure an “impulse noise protection capability”. However, it is unclear as to what applicant refers to as “impulse noise protection capability”. In addition, it is unclear on how to configure an “impulse noise protection capability” since an impulse noise protection capability does not appear to be a piece of hardware. In addition, the limitation “can be” is not a positive limitation and renders the claim vague and indefinite.

As per claim 95, the claim recites “the length of the impulse noise exceeds a correction capability of the first INP value”. However, it is unclear as to how a length can exceeds a correction capability of the INP value.

As per claim 96, see claim 88.

As per claim 103, see claim 95.

As per claim 104, see claim 88.

As per claim 105, see claim 88. in addition, claim 105, lines 1-2, recites “Means for configuring... comprising:” however, it is unclear whether or not the claim is directed to an apparatus or a method.

As per claims 106-112, line 1, “the system” lacks of proper antecedent basis, respectively.

As per claim 112, see claim 95.

As per claim 113, see claim 105.

As per claims 114-120, line 1, “the system” lacks of proper antecedent basis, respectively.

As per claim 121, see claim 105.

Any claim whose base claim is rejected is likewise rejected.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 99 and 116 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

Art Unit: 2611

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. claim 99 and 116, each recites “the information is indicates an impact of the impulse noise”. However, the specification as filed, does not provide support for such limitation, as claimed.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 88-121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cioffi US Patent No. 7,428,669 in view of Azenkot et al US Patent No. 7,050,419.

As per claim 88, Cioffi teaches a method and apparatus comprising collecting a value “receiving information”, at the management interface note steps 405-420 of fig. 4 and col. 9, lines 39-42; and updating, based on the received information, a first INP value to a second, different, INP value, the first INP value specifying a first number of corrupted DMT symbols that can be corrected and the second INP value specifying a second number of corrupted DMT symbols that can be corrected. (note 450-460 (fig. 4) and col. 4, lines 43-47, the INP is changed from one value to another value. In addition, note that is an inherent nature of INP to specify number of corrupted symbols to be corrected as defined by standards). However Cioffi fails to teach that the information or

Art Unit: 2611

value indicates one or more of a length and repetition period of impulse noise. However, as Azenkot et al teaches providing information indicating the length of impulse noise and uses such information to compensate for impulse noise note col. 21, lines 4-10. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Cioffi as it would have ensure proper compensation is provided to remove the impulse noise affecting the quality of the received signal.

As per claim 89, one skill in the art would have recognized that in order to fully compensate for the entire impulse noise a parameter such as the maximum length of the impulse would have been required. Hence, one skill in the art would have been motivated to employ the maximum length of the impulse noise so as to fully compensate for the entire impulse noise.

As per claim 90, one skill in the art would have recognized that in order to fully compensate for the entire impulse noise a parameter such as the maximum period of the impulse noise would have been required. Hence, one skill in the art would have been motivated to employ the maximum period of the impulse noise so as to fully compensate for the entire impulse noise.

As per claim 91, Cioffi teaches that the INP is greater see, entire document and specifically col. 8, lines 1-2.

As per claim 92 Cioffi teaches that the provider updates the first INP see col. 1, line 37.

As per claim 93 the INP is updated automatically notes col. 11, lines 1-4.

Art Unit: 2611

As per claim 94, the message is used to communicate the second INP value note col. 11, lines 1-5.

As per claim 95, it would have been obvious to one skilled in the art to set the length of the impulse noise in such a way as to exceed a correction capability of the first INP value so that appropriate measure can be taken to change the INP value to compensate for entire impulse span.

As per claim 96, see claim 88. In addition, Cioffi teaches that the INP value is updated (note col. 11, line 1) . Note that in order for the INP value to be updated an initial value has to be first selected.

As per claim 97, see claim 89.

As per claim 98, see claim 90.

As per claim 99, Cioffi Value as measured in step 410 would inherently include an impact of impulse noise because the impulse noise would affect signal quality.

As per claim 100, see claim 92.

As per claim 101, see claim 93.

As per claim 102, see claim 94.

As per claim 103, see claim 95.

As per claim 104 see claim 88. Cioffi teaches the CCR is adjusted (increase or decrease) by changing the INP value note col. 4, lines 43-46. one skill in the art would have understood that in order to increase or decrease the CCR the INP value has to be increase or decrease as well. Hence, decreasing the INP value is inherently taught by Cioffi.

As per claim 105, see claim 88.

As per claim 106, see claim 89.

As per claim 107, see claim 90.

As per claim 108, see claim 91.

As per claim 109, see claim 92.

As per claim 110, see claim 93.

As per claim 111, see claim 94.

as per claim 112 see claim 95.

as per claim 113, see claim 96.

As per claim 114, see claim 97.

As per claim 115, see claim 98.

As per claim 116, see claim 99.

As per claim 117, see claim 100.

As per claim 118, see claim 101.

As per claim 119, see claim 102.

As per claim 120, see claim 103.

As per claim 121, see claim 104.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



Art Unit: 2611

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Monday-Thursday from 9:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jean B Corrielus/  
Primary Examiner, Art Unit 2611